

**NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT**

Project Title: Assess Impacts and Potential Benefits of Traffic Signal Priority for Buses	
RFP Number: 2000-28	NJDOT Research Project Manager: Lad Szalaj
Task Order Number/Study Number: NCTIP-45	Principal Investigator: Daniel, Janice R.
Project Starting Date: 1/02/2002	Period Starting Date: 7/01/2004
Original Project Ending Date: 12/31/2002	Period Ending Date: 9/30/2004
Modified Completion Date: 06/30/2004	

Task	% of Total	% of Task this quarter	% of Task to date	% of Total Complete
Phase I. Assemble, Review & Synthesize Literature	10%	0	100%	10%
Task 1. Survey Existing Systems Using Priority	15%	0	100	15%
Task 2. Identifying Promising Locations and Develop Plans	25%	0	100	25%
Task 3. Assessment of Operational Plans	25%	0	100	25%
Task 4. Prepare Reports	25%	5	100	25
Final Report				100
TOTAL	100 %			100.0 %

Project Objectives:

- To assess the impacts of and the implementation issues associated with the use of bus signal priority in New Jersey;
- To develop operational test plans for implementing signal priority at promising locations; and
- To assess the benefit and costs of signal priority.

Project Abstract:

Traffic congestion is a growing problem not only in this country but all over the world. It is no longer feasible to build our way out of this problem. Encouraging the use of public transportation is one way to reduce congestion. Providing signal priority for transit vehicles has been proposed as one way of keeping these vehicles on schedule, reducing delays to the transit vehicle, and leading to more efficient public transit systems. It is hoped that this would lead more people to use this mode of transportation. Encouraging automobile drivers to switch to public transportation, however, may require that public transportation, such as buses, be given preferential treatment on the roadway. Bus transportation, therefore, should be designed and operated to provide an attractive alternative to auto travel. One measure aimed at improving surface transit movement is through the use of signal priority for buses.

Bus transportation is the most common form of public transportation used in the

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United States accounting for 63 percent of all transit trips (Danaher, 1997). Bus transportation serves many functions including providing basic mobility to the poor and elderly, helping to alleviate automobile congestion and enabling the development of high-density areas with less dependence on automobiles. In recent years, heavier demands have been placed on bus transportation to meet growing mobility needs and environmental goals. The Clean Air Act of 1990 specifically challenges the transportation profession to improve air quality through reduced automobile usage. Increasing the attractiveness of transit service, by improving transit service quality, is an important step towards meeting this goal. To increase transit attractiveness and reduce automobile usage, transit operations must be improved to provide fast, reliable service at acceptable cost.

1. Progress this quarter by task:

Comments on the Draft Final Report were received from the RSIP and addressed during the past quarter. The research team has also attempted to develop guidelines for use in determining where bus signal priority may work in New Jersey. Another version of the Draft Final Report is anticipated to be submitted in early September.

2. Proposed activities for next quarter by task:

This project ended on June 30, 2004. Pending approval of the submitted Draft Final Report, the Final Draft Report and Tech Brief will be submitted.

3. List of deliverables provided in this quarter by task (product date):

Draft Final Report provided at the January 2004 Quarterly Meeting

4. Progress on implementation and training activities:

None

5. Problems/proposed solutions:

None

6. Budget summary:

Total Project Budget	\$138,109.00
Modified Contract Amount	\$0.00
Total Project Expenditure to date	\$136,448.00
% of Total Project Budget Expended	98.80%